

# THE NORTHWEST PAVEMENT MANAGEMENT ASSOCIATION NEWSLETTER



*'Government and Private Agencies Working Together for Better Pavements'*

Chair - Matt Pietrusiewicz  
August, 1997

Vice Chair - Dave Shepard

Sec./Treas. - Vicki Griffiths  
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## Words From The Chair

Just a few quick words from our home office in Yakima Washington. I hope that all of you are having a fun and productive summer. Unfortunately, it is not going to last forever, which brings me to the point of this article.



Plans for the 1997 fall conference in Yakima are well under way. This years conference will be held at the Holiday Inn in downtown Yakima. A registration form is included in this news letter and contains all the logistical information.

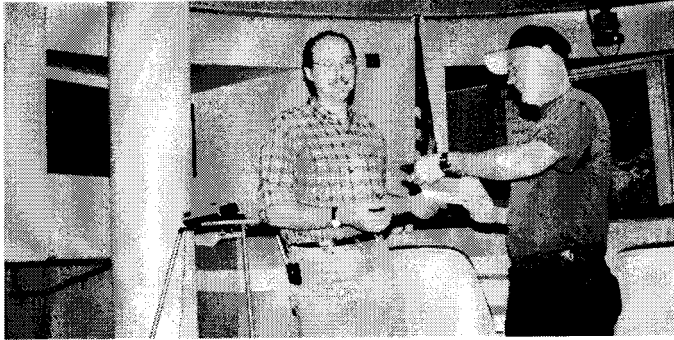
As always, the success of the conference is dependent upon the participants. During the formation of the agenda, we have left some time slots open for group discussions on a variety of issues. These sessions are intended to be an open forum for the exchange of information.

The opening session of the conference is scheduled to be a time for us to set the goals for the conference. Prior to attending, I hope that each of us can set some time aside to consider what we would like to accomplish during the three days. Please come prepared to contribute your ideas and enthusiasm for making this a productive event.

Thanks for your time and I am looking forward to seeing you in October.

Matt Pietrusiewicz  
NWPMA Chair

## **Recognition Award**



Chad Coles receives a recognition award from Howard Hamby on behalf of the NWPMA, for his years of dedication and support of NWMPA and pavement management.

## **New Meeting Schedule For Northwest and Puget Sound Chapter**

### **NORTHWEST & PUGET SOUND**

A big thank you goes to Gary Grieve, King County, for having the combined Puget Sound and Northwest chapters June meeting, surrounded by a lively and well-attended group.

Because the counties and cities are busy during this construction season, the Northwest Chapter will hold no meetings during the month of July and August. Look for information regarding the October meeting in the near future. This combined chapter meeting (again with Northwest and Puget Sound) is set for October 8 in Island County led by Larry Frostad

## **Bainbridge Island Pavement Management Success Story**

*Editor's Note: This is the first article in our series on how local agencies around the state have been successfully implementing pavement management systems. Our thanks to Lay Chin Fou for the time he spent answering our questions. In the next issue of the Newsletter we will highlight how the City of Seattle has been using pavement management successfully. We will also have an article on Bob Aiello, who works for the City of Seattle. Bob will officially retire from the City as of the middle of August.*

*If your local agency is interested in having a story written about how pavement management has been implemented in your community, please contact Paul Sachs at (360) 705 - 7352 or John Romero at (360) 705 - 7376.*

The city of Bainbridge Island, which is responsible for 140 miles of paved roads, has been putting a pavement management system to effective use since 1994. Prior to that, the city repaired streets by driving an automobile on its

road network and subjectively selecting streets. The city felt that it needed a more systematic method of selecting streets for repair. Therefore, Bainbridge Island began implementing a pavement management system which uses a more objective method of field data collection to assist in spending their street and road dollars more cost effectively.

Since 1994, the city has used the information generated from the pavement management system to select the initial list of street segments for repair. They use the pavement condition rating (PCR) as the starting point in selecting priorities for street repair on a year-to-year basis. A decision tree procedure, which is incorporated into the system, allows the city to select specific treatments for different PCR levels. Each street in the city has a treatment assigned to it. Since there is never enough money to fix all the city's streets. This is when the pavement management system proves its value. Using the PCR, the city evaluates each segment and sets its priorities accordingly. They are limited in the amount of segments they can fix in any given year, but using the pavement management system, enables the city to spend its limited resources in a more cost effective manner.

One of the important benefits of the pavement management system is the ability to track and analyze the effects of heavy loads on the roadway network. The PCR derived from the pavement management system not only includes distress information from each segment, but also includes equivalent single axle loads (ESAL) in the overall condition rating. ESAL information is important to the city as it shows which roads are used by trucks and other heavy vehicles. This information is then available to used to modify the treatment identified in the initial analysis, if the segment is not sufficient to withstand the number of ESALs for the pavement design period.

Another cost effective benefit of using a pavement management system is the reduced damage to newly paved segments due to utility cuts. The city has also used the pavement management system to help coordinate with utility companies operating on the Island. After segments are selected for repair, a list of them is provided to the utility companies. If these companies are planning to do any work requiring utility cuts on the segments, it is done prior to the time the city repairs the street. This utility coordination cuts down on the number of streets that are dug into after a treatment has been made to a segment.

Having the pavement management system in place on its entire street network will help the city in the future. In May 1997, a survey was sent to residents of Bainbridge Island by the Bainbridge Economic Council. The survey asked the residents of Bainbridge Island to prioritize important governmental issues. The citizens ranked repairing the Island's roads as the highest priority. It is not known yet whether the city's public works department will receive additional funding to repair its street network. But, having the pavement management system in place will enable the city to show its council the budget impacts of future street maintenance investments, and to spend available taxpayers' dollars in a much more cost effective way.

For more information contact: Lay Chin Fou of Bainbridge Island at (206) 842 - 2016

## E-Mail

### New Local Agency Pavement Management Publication Available

A report titled, "Current Application and Successful Implementation of Local Agency Pavement Management in the United States," was recently published by the Federal Highway Administration. The report was written by Paul Sachs and highlights successful application of pavement management in the United States, including a section on Washington. The report is available from the Northwest Technology Transfer Center. Please call Laurel Gray at (360) 705 - 7386 if you are interested in receiving a copy.

### Is SRview In Your Future?

*In our continued effort to improve data collection procedures for local agencies TransAid is supporting SRView. This article introduces SRView to you. As you are reading it please think of ways that SRView can help in data collection in your agency.*

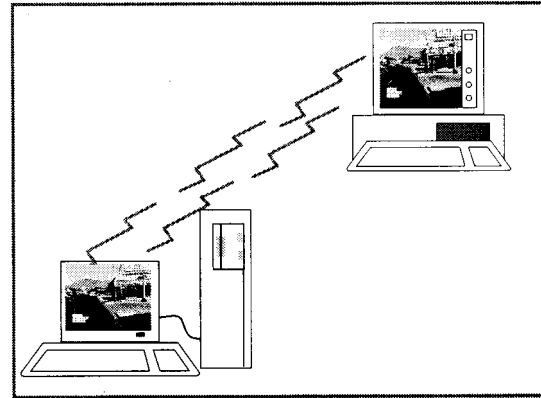
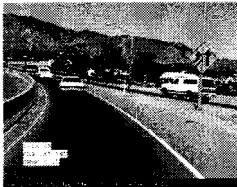
SRview - short for State Route View - is application software used to collect, store, and view images. Once collected, these images become part of a database stored on a CD disk, where they can be instantly accessed and viewed by anyone with a CD drive-equipped computer. Once in the computer, these images can be inserted into a document or E-mailed to another location.

### Document Insertion

Dear Jill

Here is a view of the stretch of road you asked for.  
Let me know if you need additional views of that  
general vicinity

Jack



TransAid sees SRview as a great imaging utility with potentially numerous local applications that need to be explored. The catalyst in this exploration process is, of course, you. Your ideas, imagination and vision will be instrumental in molding SRview to meet your local needs.

Credit for the concept of SRview and its development go to the Transportation Data Office, a branch within WSDOT's Planning and Programming Service Center. Currently, the Department uses SRview to collect roadway images of the state's highway system.

### How Did A Great Idea Like This Come About?

To satisfy maintenance, risk management, and engineering requirements, the Department of Transportation videotapes the state's highway system once every two years - a task that consumes literally hundreds of tapes. When coupled with the additional burden of tape duplication and storage, videotape falls far short of being the ideal imaging medium. We needed a drastic reduction of our reliance on videotapes.

To find alternatives, we held a brainstorming session last year in which we sought to explore ways to reduce our total dependence on videotape and develop a better, more flexible, imaging product. That - in a nutshell - is how the Department came up with SRview.

### SRview Specifics

The SRview system uses only standard hardware components. The computer, camera, DMI, and associated equipment are common retail items that can be readily purchased from appropriate retailers. Total system cost, minus GPS equipment, is about \$15,000.

The software to run the system was developed by WSDOT and is free to local agencies.

### How Does SRview Work?

As the video van travels down the highway, it continuously videotapes the route. A Distance Measuring Instrument (DMI) superimposes milepost information on the videotape. The DMI imprints its data on the tape every 52.8 feet ( or 1/100 of a mile).

Since the DMI is nothing more than a glorified odometer, the SRview software is able to grab the image the camera sees at the precise moment that the DMI "turns over." SRview compresses that image, gives it a file name, stores it on the hard drive, clears the computer's memory and waits to grab the next image - 52.8 feet down the road.

Traveling at roughly 40 mph, SRview must capture and process an image every 0.9 seconds. At the end of each taping day, the image files are downloaded from the hard drive and stored on a standard compact disk, or CD.

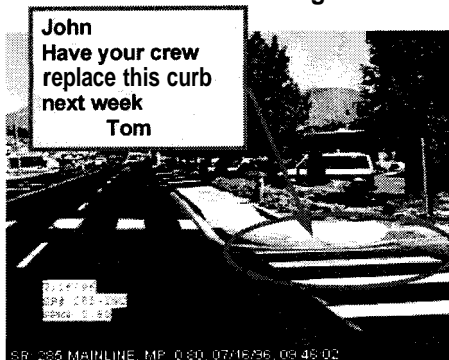
Each CD can hold roughly 50,000 images captured at the 52.8 foot interval. These 50,000 images represent 500 miles of roadway. The reception of SRview by various and diverse work groups has been extremely positive and has really stirred peoples' imaginations. Because of that, numerous unanticipated, potential applications - based on the product's capabilities - have surfaced.

For example, local agencies could use SRview for documenting public works projects, scheduling and completing maintenance activities, design visualization, documenting bus and evacuation routes, and for sign inventory.

#### Project Documentation



#### Job Scheduling



What we need from local agencies are more ideas for other potential applications. CRAB (the County Road Administration Board) is interested in SRview for general local agency applications, and FHWA is very interested for Damage Assessment purposes. SRview has drastically reduced WSDOT's sole reliance on videotapes and has made these very valuable images available to anyone with a CD drive.

#### What's Going On Now

Some of your peers have already identified local applications and pilot projects that would be greatly enhanced by SRview. For example Camas and Pasco are interested in relating GPS coordinates to actual street images. A pilot project to accomplish exactly that has already been successfully completed by Anacortes. I think the folks in Anacortes would agree that a picture is worth a thousand words. The GPS equipment used on the Anacortes job was borrowed from Thurston County's Chief Surveyor, Les Olsen. Besides the equipment, Les also lend us the technical expertise, time and insights. Thanks Les.

Olympia wants to utilize SRview in providing images of the inside of their sewer lines. Lacey is interested in a sign inventory that is based on a visual record. Okanogan County expressed a need to tie SRview images to the 911 emergency system. The same idea has surfaced in Whitman County.

Other potential applications where a visual record could prove invaluable are vegetation management, pavement evaluation, and risk management.

What application ideas do you have? Do you find SRview intriguing?

If the answer to either or both of these questions yes then contact me, Hans Cregg, at

Phone (360) 705-7385

Fax (360) 705-6858

E-mail: Hcregg@WSDOT.WA.GOV

E-mail: Hcregg@AOL.COM

to share your thoughts or schedule a SRview presentation.

#### NORTHWEST PAVEMENT MANAGEMENT ASSOCIATION NEWSLETTER POLICY

In an effort to communicate and advance the goals of the Northwest Pavement Management Association (NWPMA), a newsletter shall be published on a regular basis for distribution to the membership. The newsletter shall act as an open forum to communicate and exchange information consistent with the NWPMA goals within the following general policy guidelines:

##### Articles

Any article of interest to the membership may be printed. Articles should generally pertain to the construction, reconstruction and/or maintenance of pavements or the activities of the NWPMA. All members are encouraged to submit news articles for publication.

##### Advertising

No advertising by vendors or consultants will be allowed. Vendors and consultants will be listed in the Calendar of Events portion of the newsletter.

Any special circumstances requiring consideration of an exception to the above guidelines will be discussed on a case-by-case basis between the editor and the NWPMA chairman. The final decision on the content of the newsletter will rest with the current NWPMA chairman.

This policy was adopted on December 10, 1996.

The annual NWPMA Fall Conference will take place in Yakima on October 28<sup>th</sup> - 30<sup>th</sup>. Included in this newsletter is a registration form with all of the instructions on how to sign up. Topics to be presented will include:

- Presentation on the modifications to the Pavement Surface Condition Rating Manual
- Presentation on SR View (see related article in this newsletter)
- Presentation on how Spokane County has used their PMS
- Discussion session on assessing actual PMS benefits
- Presentation on how Oregon is using PMS
- Report on Cost benefits of a variety of Maintenance Treatments
- Presentation from the city of Yakima on Cold Planing
- Presentation on how to use Streetwise: A Pen to Paper PMS for small local agencies
- Visual Rate off

There will be a number of other technical as well as discussion sessions during the 2 % day conference. The conference is scheduled to get under way on the morning of the 28<sup>th</sup> with both a rate off as well as a technical session. When the full agenda has been determined by the Executive Board it will be mailed to you. In the mean time mark your calendars and make your reservations for the NWPMA Fall Conference.

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### Registration information for the NWPMA Fall Conference

What: NWPMA Fall Conference

Cost: \$95.00

Sign Up Name: \_\_\_\_\_

Agency: \_\_\_\_\_

Address: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code \_\_\_\_\_

Phone Number: \_\_\_\_\_ Fax \_\_\_\_\_

Fax this sheet to Vicki Griffiths at (360) 336 - 9369

or mail it to her at: Skagit County Public Works  
1111 Cleveland Avenue  
Mt. Vernon, Wa. 98273

Where: Holiday Inn  
9 North Street  
Yakima, WA 98901  
(509) 452 - 6511 (reservations)  
(509) 457 - 4931 (fax)

\$59.00 plus tax per room. Rooms will be held until October 6. Please make your reservations early to secure your spot.

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